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Engineering Project Consultants

Job No.: CTCE/BBMP/W.No.12/KRIDL/CEMENT/2011-12 Date: 24.02.2012

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
AGENCY	:	**Technical Manager (West),** KRIDL, Bangalore.
NAME OF THE WORK	:	Asphalting from Pipe Line Road Junction to Abbigere Village, Abbigere Main Road in Ward No. 12, Shettyhalli Sub Division, BBMP, Bangalore.
REFERENCE	:	TM(W)/KRIDL/BBMP/WKS/2011-12 /2067
SAMPLE ID	:	CEMENT
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-1989
1	a) Initial Setting Time	IS-4031 (Part -5)	156 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	482 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	2 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	31.00 %	-

Information is furnished by the Agency.

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Job No.: CTCE/BBMP/W.No.12/KRIDL/SAND/2011-12

24.02.2012

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of Work : Asphalting from Pipe Line Road Junction to Abbigere Village, Abbigere Main Road in Ward No. 12, Shettyhalli Sub Division, BBMP, Bangalore.

Reference : TM(W)/KRIDL/BBMP/WKS/2011-12 /2067

Date of Testing : 24.02.2012

Material : Sand

Total Wt. of Aggregates in gms 2000

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	53	2.65	2.65	97.4	90-100
2.36	256	12.80	15.45	84.6	75-100
1.18	397	19.85	35.30	64.7	55-90
600 Micron	498	24.90	60.20	39.8	35-59
300 Micron	512	25.60	85.80	14.2	8-30
150 Micron	158	7.90	93.70	6.3	0-10

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Engineering Project Consultants

Job No.: CTCE/BBMP/W.No.12/KRIDL/AGG/2011-12

24.02.2012

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.

Agency : Technical Manager (West), KRIDL, Bangalore.

Name of Work : Asphalting from Pipe Line Road Junction to Abbigere Village, Abbigere Main Road in Ward No. 12, Shettyhalli Sub Division, BBMP, Bangalore.

Reference : TM(W)/KRIDL/BBMP/WKS/2011-12 /2067

Date of Testing : 24.02.2012

Material : 40mm Aggregates

Total Wt. of Aggregates in gms 20000

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	772	3.86	3.86	96.14	95-100
20	11602	58.01	61.87	38.13	30-70
10	5327	26.64	88.51	11.50	10-35
4.75	1896	9.48	97.99	2.02	0-5

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Job No.: CTCE/BBMP/W.No.12/KRIDL/STEEL/2011-12 28.02.2012

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
Name of the Work	:	Asphalting from Pipe Line Road Junction to Abbigere Village, Abbigere Main Road in Ward No. 12, Shettyhalli Sub Division, BBMP, Bangalore.
Reference	:	TM(W)/KRIDL/BBMP/WKS/2011-12 /2067
Date of Test	:	28.02.2012
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	12	0.895	524	549	13.45	O.K	O.K
2	16	1.596	532	552	14.10	O.K	O.K

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Job No.: CTCE/BBMP/W.No.12/KRIDL/CUBE/2011-12

30.03.2012

TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of the work : Asphalting from Pipe Line Road Junction to Abbigere Village, Abbigere Main Road in Ward No. 12, Shettyhalli Sub Division, BBMP, Bangalore.

Reference : TM(W)/KRIDL/BBMP/WKS/2011-12 /2067

Sample ID : Culvert Deck Slab Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	02.03.2012	30.03.2012	8.374	505.4	22.46
2	02.03.2012	30.03.2012	8.115	472.8	21.01
3	02.03.2012	30.03.2012	8.269	489.6	21.76

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Job No.: CTCE/BBMP/W.No.12/KRIDL/BM/Bitumen/2011-12 06.03.2012

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS MACADAM MIX

AASHTO T 164 & AASHTO T 30

CLIENT	Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
AGENCY	Technical Manager (West), KRIDL, Bangalore.
NAME OF THE WORK	Asphalting from Pipe Line Road Junction to Abbigere Village, Abbigere Main Road in Ward No. 12, Shettyhalli Sub Division, BBMP, Bangalore.
REFERENCE	TM(W)/KRIDL/BBMP/WKS/2011-12 /2067
SAMPLE I/D	Pipe Line Road Junction to Abbigere Village, Abbigere Main Road
DATE OF TESTING	06.03.2012

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	483.5	484.5
3. Weight of Asphalt and Mineral matter Extracted,	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	16.5	15.50
7. Bitumen content in %	3.30	3.10
8. Average	3.20	

GRADATION AFTER EXTRACTION

SIEVE SIZE	Trail 1				JOBMIX
mm	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	Gradation
26.5	0	0	0	100	100
19	35.8	7.40	7.40	92.60	90-100
13.2	173.4	35.86	43.27	56.73	56-88
4.75	171.8	35.53	78.80	21.20	16-36
2.36	43.2	8.93	87.74	12.26	4-19
0.3	33.49	6.93	94.66	5.34	2-10
0.075	7.29	1.51	96.17	3.83	0-8

SIEVE SIZE	Trail 2				JOBMIX
mm	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	Gradation
26.5	0	0	0	100	100
19	22.5	4.50	4.50	95.50	90-100
13.2	159.8	31.96	36.46	63.54	56-88
4.75	195.7	39.14	75.60	24.40	16-36
2.36	76.3	15.26	90.86	9.14	4-19
0.3	13.41	2.68	93.54	6.46	2-10
0.075	8.12	1.62	95.17	4.83	0-8

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Job No.: CTCE/BBMP/W.No.12/KRIDL/BC/Bitumen/2011-12 07.03.2012

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE AASHTO T 164 & AASHTO T 30

CLIENT	Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
AGENCY	Technical Manager (West), KRIDL, Bangalore.
NAME OF THE WORK	Asphalting from Pipe Line Road Junction to Abbigere Village, Abbigere Main Road in Ward No. 12, Shettyhalli Sub Division, BBMP, Bangalore.
REFERENCE	TM(W)/KRIDL/BBMP/WKS/2011-12 /2067
SAMPLE I/D	Pipe Line Road Junction to Abbigere Village, Abbigere Main Road
DATE OF TESTING	07.03.2012

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Sample 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	475.5	476
3. Weight of Asphalt and Mineral matter Extracted, g	24.5	24
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g	-	-
6. Weight of Bitumen Extracted, g. (corrected)	24.5	24
7. Bitumen content in %	5.15	5.04
8. Average	5.10	

GRADATION AFTER EXTRACTION

TABLE - 1

Sieve size in mm	Percent Passing, %		Specified Limits as per MORTH specification table 500-4 (Grading-2)
	Sample 1	Sample 2	
19	100.00	100.00	100
13.2	85.74	88.74	79-100
9.5	79.62	80.26	70-88
4.75	63.25	64.58	53-71
2.36	55.48	53.49	42-58
1.18	43.21	42.18	34-48
0.6	34.59	33.51	26-38
0.3	23.19	22.19	18-28
0.15	16.27	15.84	12-20
0.075	6.58	7.85	4-10

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